

What is claimed is:

1. A method of constructing large capacity power battery and its associated cooling system, where the battery comprising:

a group of soft shell lithium battery cells connecting in serial or parallel to form a battery unit, a temperature switch controller, at least one temperature sensor, at least one fan, an outer case with at least one array of round or square ventilation holes drilled on the front of and back of said outer case and hollow metal plates or pipes imbedded between said battery cells; and

a plurality of said units are connected either in serial or parallel into the final battery protected by the outer case, where the temperature sensor is installed between said units; and the fan is installed inside of the outer case that is controlled by said temperature switch controller and the temperature sensor.

2. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein said soft shell battery cell is regular liquid lithium ion battery, where positive plate is separated from negative plate by a separation membrane, and its shell is made of aluminum coated plastic paper.

3. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein multiple of said soft shell battery cells connected by positive leads and negative leads are fixed by a pair of clamping plates to make up a unit; multiple said units connected in serial or parallel make up the whole battery which is secured and protected by a metal or plastic case.

4. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein said metal plates with holes or metal pipes are secured in between said cells by a pair of clamping plates.

5. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein said ventilation holes are strategically aligned with the positions where said metal pipes or metal plate are located.

6. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein for stationery application, at least one of said fan is used; and said temperature switch controller is placed in a protection circuit, whereas temperature sensors are imbedded inside or between said units.

7. A method of constructing large capacity power battery and its associated cooling system of claim 1, wherein for moving application, such as mounted on moving vehicle, there will be no need for said fan, said temperature switch controller and temperature sensors to be installed.